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Applicants: Alizon, M., et al.

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### Search Strategy

FILE 'USPATFULL' ENTERED AT 15:50:11 ON 24 JUN 2003

	E ALIZON MARC/IN
L1	49 S E3
	E SONIGO PIERRE/IN
L2	50 S E3
L3	5 S L2 NOT L1
	E WAIN-HOBSON SIMON/IN
	E WAIN HOBSON S/IN
L4	22 S E4
L5	2 S L4 NOT L1
	E MONTAGNIER LUC/IN
L6	91 S E3
L7	47 S L6 NOT L1
L8	25015 S (HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
L9	335 S L8 AND (MOLECULAR CLONE?)
L10	223 S L9 AND (NUCLEOTIDE SEQUENCE)

FILE 'WPIDS' ENTERED AT 15:55:00 ON 24 JUN 2003

	E ALIZON M/IN
L11	16 S E3
	E SONIGO P/IN
L12	21 S E3
L13	8 S L12 NOT L11
	E WAIN HOBSON S/IN
	E WAIN-HOBSON S/IN
	E WAINHOBSON S/IN
L14	5 S E3
L15	15488 S (HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
L16	16 S L15 AND (MOLECULAR CLONE?)

FILE 'MEDLINE' ENTERED AT 15:58:14 ON 24 JUN 2003

	E ALIZON M/AU
L17	66 S E3
L18	131782 S (HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
L19	397 S L18 AND (MOLECULAR CLONE?)
L20	3 S L19 AND (COMPLETE NUCLEOTIDE SEQUENCE)
L21	156 S L19 AND (NUCLEOTIDE SEQUENCE OR AMINO ACID SEQUENCE)

L14 ANSWER 1 OF 5 WPIDS (C) 2003 THOMSON DERWENT

AN 1991-177518 [24] WPIDS

DNC C1991-076638

TI Purified human retrovirus - is mutant of HIV-1 having characteristics of HIV-1 oyi, used in diagnosis of hiv infection.

DC B04 D16

IN BRUNVEZINE, F; DELAPORTE, E; HUET, T; WAINHOBSON, S

PA (INSP) INST PASTEUR

CYC 1

PI US 5019510 A 19910528 (199124)\*

ADT US 5019510 A US 1987-113655 19871028

PRAI US 1987-113655 19871028

AB US 5019510 A UPAB: 19930928

Purified human retrovirus is a mutant (I) of Human Immunodeficiency Virus-1 (HIV-1) and has all the identifying characteristics of HIV-1 OYI.

(I) has the following characteristics: (a) it is capable of being immunologically recognised by antibodies to gag and pol gene prods. of HIV-1 and HIV-2 when assayed by Western Blot technique; (b) it is not immunologically recognised by antibodies to envelope glycoproteins gp. 160, gp. 120 and gp. 41 of HIV-1 or HIV-2 when assayed by Western Blot technique; and (c) it exhibits weaker immunologic reaction to the gene prods. of HIV-2 than to the gene prods. of HIV-1.

USE/ADVANTAGE - Genomic DNA from (I) has been cloned and retroviral proteins have been sequenced. In addn. to providing useful tools for detection of the retrovirus in humans, (I) adds to the base of knowledge relating to genetic variability of the AIDS virus. The retroviral antigens provide an assay which is convenient, rapid, sensitive and specific.  
0/13

L21 ANSWER 108 OF 156 MEDLINE

93059708 Document Number: 93059708. PubMed ID: 1433527. An infectious molecular clone of an unusual macrophage-tropic and highly cytopathic strain of human immunodeficiency virus type 1. Collman R; Balliet J W; Gregory S A; Friedman H; Kolson D L; Nathanson N; Srinivasan A. (Division of Pulmonary and Critical Care, University of Pennsylvania School of Medicine, Philadelphia 19104. ) JOURNAL OF VIROLOGY, (1992 Dec) 66 (12) 7517-21. Journal code: 0113724. ISSN: 0022-538X. Pub. country: United States. Language: English.

AB We isolated and molecularly cloned a human immunodeficiency virus type 1 (HIV-1) strain (89.6) which is unusual because it is both macrophage-tropic and extremely cytopathic in lymphocytes. Moreover, this is the first well-characterized infectious molecularly cloned macrophage-tropic HIV-1 strain derived from peripheral blood. HIV-1 89.6 differs markedly from other macrophage-tropic isolates within the envelope V3 region, which is important in determining cell tropism and cytopathicity. HIV-1 89.6 may thus represent a transitional isolate between noncytopathic macrophage-tropic viruses and cytopathic lymphocyte-tropic viruses.

L22 ANSWER 47 OF 241 MEDLINE

2001051038 Document Number: 20418939. PubMed ID: 10954893. Construction and biological characterization of an infectious molecular clone of HIV type 1GB8. Novelli P; Vella C; Oxford J; Daniels R S. (Division of Virology, The National Institute for Medical Research, London, UK. ) AIDS RESEARCH AND HUMAN RETROVIRUSES, (2000 Aug 10) 16 (12) 1175-8. Journal code: 8709376. ISSN: 0889-2229. Pub. country: United States. Language: English.

AB Here we report the construction, sequencing, and repair of a molecular clone of HIV-1GB8, a virus representative of HIV-1 subtype B strains circulating in the UK. The phenotype of virus produced by the clone matches that of the parental virus. The molecular clone will be used in the production of attenuated virus stocks for chemical inactivation to allow development of vaccines based on killed whole virus preparations.

L22 ANSWER 85 OF 241 MEDLINE  
1999085865 Document Number: 99085865. PubMed ID: 9870318. Complete sequence of an infectious molecular clone derived from a Spanish HIV type I isolate. Olivares I; Casado Herrero C; Iglesias-Ussel M D; Dietrich U; Lopez Galindez C. (Centro Nacional de Biologia Fundamental, Instituto de Salud Carlos III, Majadahonda, Madrid, Spain. ) AIDS RESEARCH AND HUMAN RETROVIRUSES, (1998 Dec 20) 14 (18) 1649-51. Journal code: 8709376. ISSN: 0889-2229. Pub. country: United States. Language: English.

L22 ANSWER 202 OF 241 MEDLINE  
92028877 Document Number: 92028877. PubMed ID: 1930183. Isolation and characterization of an infectious molecular clone of the MN strain of HIV-1. Prakash K; Hodinka R L; Hullihen D M; Plotkin S A. (Children's Hospital of Philadelphia, PA 19104. ) BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1991 Sep 30) 179 (3) 1377-83. Journal code: 0372516. ISSN: 0006-291X. Pub. country: United States. Language: English.

AB Infectious molecular clones of the human immunodeficiency virus (HIV) have been very important tools for the analysis of regulatory gene functions and the study of differential cell tropism. We have cloned and characterized a proviral sequence of HIVmn from mn strain infected H9 cells. This clone, called KP1, was found to be infectious for different cell lines and human peripheral blood lymphocytes (PBL). KP1 proviral DNA was detected in HUT-78 cells and human PBL by polymerase chain reaction (PCR) analysis after infection of these cells with cell-free supernatants from KP1 transfected human rhabdomyosarcoma (RD) cells. To the best of our knowledge, this is the first report of an infectious molecular clone of HIVmn which is a representative of one of the most prevalent strains of HIV-1 in North America and Europe. Biologically active clones of a broadly antigenic strain such as HIVmn will be extremely useful in therapeutic approaches for AIDS.

L22 ANSWER 210 OF 241 MEDLINE  
91135020 Document Number: 91135020. PubMed ID: 1704660. Biological characterization of infectious molecular clones derived from a human immunodeficiency virus type-1 isolate with rapid/high replicative capacity. Fredriksson R; Stalhanske P; von Gegerfelt A; Lind B; Aman P; Rassart E; Fenyo E M. (Department of Virology, School of Medicine, Karolinska Institute c/o National Bacteriological Laboratory, Stockholm, Sweden. ) VIROLOGY, (1991 Mar) 181 (1) 55-61. Journal code: 0110674. ISSN: 0042-6822. Pub. country: United States. Language: English.

AB In order to molecularly characterize rapidly and slowly replicating HIV-1 variants, molecular clones were obtained from a rapid/high virus isolate. This isolate, 4803, had only been passaged in peripheral blood mononuclear cells (PBMC) prior to cloning. Molecular cloning was done in bacteriophage lambda-dash using high molecular weight DNA of isolate 4803 infected PBMC. Seven recombinant phages were identified. The clones were found to be related to each other

and differed only at 1 or 2 restriction sites (out of 28). The molecular clones were transfected into various cell types by electroporation. The phenotype of progeny viruses was found to be dependent on the cell type used for transfection. Progeny viruses produced by PBMC cultures differed from the parental isolate in that they did not form syncytia and lacked the capacity to replicate in cell lines. Since transfection of PBMC yielded progeny viruses within 1 week, this phenotype is considered to be the true phenotype of the clones. Transfection of the T-lymphoid HUT-78 cell line and of the monocytoid U937-2 cell line yielded progeny viruses after considerable delay (more than 1 month). Progeny viruses from HUT-78 cells were similar to the parental isolate in that they formed syncytia in PBMC and replicated in all cell lines tested. Progeny viruses from U937-2 cells showed an intermediate phenotype in that they replicated in U937-2 but not in T-lymphoid cell lines. These results indicate that molecular clones of a rapid/high virus may have a restricted replicative capacity compared to the parental, genetically heterogenous virus isolate.